

Physical literacy in youth participating in different streams of community programming

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Physical literacy (PL) influences lifetime physical activity and may be improved through community programming. The purpose of this study was to determine the effect of participating in 9-week community program streams on PL in male and female youth. A pre-test post-test repeated measures design was used to assess PL in youth (age 6-12) participating in community program streams (cardio, game-on, fun, yoga) and completing the Physical Literacy Assessment of Youth (PLAY) Basic and Self at week 2 and week 9 of the program. A single HD camera (Sony Handycam, HDRCX405) recorded (25Hz) PLAYBasic tasks (run, hop, throw, kick, and backward walk); videos were scored offline using a 100-millimeter (mm) scale. The PLAYSelf was used to determine self-assessment of PL (max score=100). After PL testing, a single rater scored pre/post PLAYBasic videos separated by 2 weeks to reduce rater bias. Repeated Measures ANOVAs were used to determine pre/post changes in PLAYBasic and Self over time or between program streams or sex. Thirty-eight youth (n=19 male; 19=female) completing cardio(n=11), game-on(n=10), fun(n=6), yoga(n=11) demonstrated significant pre/post increases in dominant ($39.3 \hat{\pm} 15.3$ vs. $48.1 \hat{\pm} 12.9$ mm, $p=.01$) and non-dominant ($32.5 \hat{\pm} 12.5$ vs. $39.6 \hat{\pm} 11.3$ mm, $p=.004$) throwing and backward walk ($39.5 \hat{\pm} 16.5$ vs. $48.0 \hat{\pm} 11.2$ mm, $p=.03$). There were no changes in dominant ($55.4 \hat{\pm} 18.4$ vs. $58.2 \hat{\pm} 17.9$ mm, $p=.90$) or non-dominant ($48.0 \hat{\pm} 17.8$ vs. $51.5 \hat{\pm} 18.1$ mm, $p=.11$) hopping, dominant ($35.0 \hat{\pm} 15.0$ vs. $45.4 \hat{\pm} 20.1$ mm, $p=.17$) or non-dominant ($28.4 \hat{\pm} 15.1$ vs. $32.0 \hat{\pm} 16.8$ mm, $p=.46$) kicking, or running ($43.7 \hat{\pm} 13.1$ vs. $49.5 \hat{\pm} 14.0$ mm, $p=.28$). There were no changes to PLAYSelf over time ($71.8 \hat{\pm} 9.8$ vs. $72.7 \hat{\pm} 13.6$, $p=.15$). There were no sex or stream effects in PLAYBasic or Self. Some aspects of PL improved in youth participating in community program streams, which may reflect

program focus. Those engaged in programming should consider how program structure may influence PL outcomes.